WHAT IS CLAIMED IS:

1. An optical disk device comprising:

a thread on which a pick-up head is placed, said pick-up head serving to read data recorded on an optical disk by irradiating a track formed on a recording face of said optical disk with an optical beam focused by a lens and detecting the reflected light;

a lens moving unit adapted to move the lens of said pick-up head relative to said thread in a radial direction of said optical disk;

a thread moving unit adapted to move said thread as well as said pick-up head in the radial direction of the optical disk; and

a movement controller adapted to control said thread moving unit to start movement of said thread while controlling said lens moving unit to perform track-on control so that the lens of said pick-up head is located on a prescribed track, and thereafter when it is detected that said lens has deviated from said prescribed track by a prescribed amount or more owing to movement of said thread, starting the movement of said lens by said lens moving unit,

wherein said movement controller detects whether or not said lens and said prescribed track have displaced from each other by a prescribed amount on the basis of whether a tracking servo signal has exceeded a prescribed potential, until said

lens deviates from the prescribed track by a prescribed amount or more, controlling said thread moving unit to apply force having a prescribed magnitude to said thread continuously and when shifted by the prescribed amount or more, controlling said thread moving unit and said lens moving unit to control the moving speed of the lens at a constant speed.

2. An optical disk device comprising:

a thread on which a pick-up head is placed, said pick-up head serving to read data recorded on an optical disk by irradiating a track formed on a recording face of said optical disk with an optical beam focused by a lens and detecting the reflected light;

a lens moving unit adapted to move the lens of said pick-up head relative to said thread in a radial direction of said optical disk;

a thread moving unit adapted to move said thread as well as said pick-up head in the radial direction of the optical disk; and

a movement controller adapted to control said thread moving unit to start movement of said thread and thereafter when it is detected that said lens has deviated from said prescribed track by a prescribed amount or more owing to movement of said thread, starting the movement of said lens by said lens moving unit.

3. The optical disk device according to claim 2, wherein

until a center of said lens deviates from the prescribed track by a prescribed amount or more, said controller controls said thread moving unit to apply force having a prescribed magnitude to said thread continuously.

4. The optical disk device according to claim 2, wherein when the center of said lens deviates from the center of said prescribed track by a prescribed amount or more, said controller controls said thread moving unit and said lens moving unit to control the moving speed of the lens at a constant speed.